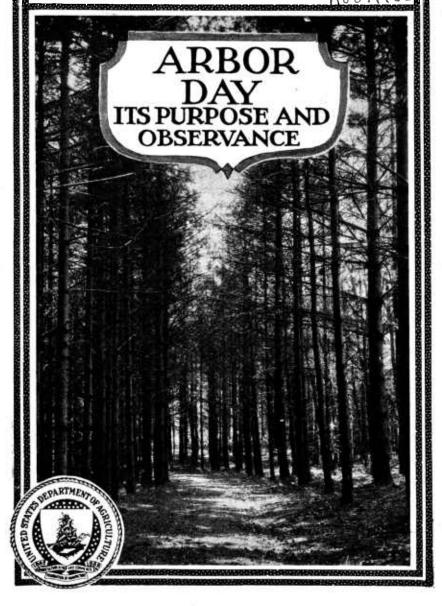
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

U.S. DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN No. 1492 Aut. 1930



RBOR DAY has become associated all over the United States with patriotic and esthetic as well as economic ideas. It is at once a means of doing practical good to the community and an incentive to civic betterment. The planting of trees by school children is usually accompanied by ceremonies intended both to impress upon those present the beauty of trees and their effect in improving the appearance of school grounds, streets, parks, highways, etc., and to lead them to a realization of the value of community and national foresight. patriotic festival it partakes of the nature of Fourth of July celebrations or the observance of Washington's Birthday, and in Texas, where the season is propitious, it is observed on February 22. It is appropriate that it should be so, for an abundant supply of timber has always had a basic influence on the development of the American Nation, on social as well as economic conditions, on the high standards of living characteristic of this country. Even more beautiful and more important to the national well-being than the trees of street and park are the great forests of pine and fir and hardwoods that clothe the mountain sides and the sandy plains and that should be a never-failing source of wood, water, and other necessities of life and civilization. The Arbor Day tree is not only a thing of beauty and utility in itself; it is also a symbol, standing for the recognition of the importance of the forest in the life of the Nation.

Washington, D. C.

Issued June, 1925 Revised November, 1920

ARBOR DAY ITS PURPOSE AND OBSERVANCE

Prepared by the Forest Service

CONTENTS

	Page		Page
Origin of Arbor Day	1	Forest planting on farms	8
Spread of the observance of Arbor		Memorial trees	11
Day	1	Trees to plant	11
Time of Arbor Day	4	Planting suggestions	15
Arbor Day and the spirit of civic bet-		Caring for the tree	16
terment	6	Wood and water	17
Planting of trees along streets and		Community forests	18
highways	Q.	Forest week	20

ORIGIN OF ARBOR DAY

TREE-PLANTING festivals are probably as old as civilization. Sacred trees and groves, planted avenues and roadsides, shaded academic walks, and memorial trees were common long before America was discovered. Arbor Day, as such, however, is purely American in origin and grew out of conditions peculiar to the Great Plains of the West, a country practically treeless over much of its area but supporting a flourishing agriculture and with a soil and

climate well able to nourish tree growth.

Arbor Day originated and was first observed in Nebraska in 1872. The plan was conceived and the name "Arbor Day" proposed by J. Sterling Morton, then a member of the State board of agriculture, and later United States Secretary of Agriculture. At a meeting of the State Board of Agriculture of Nebraska, held at Lincoln, January 4, 1872, he introduced a resolution "that Wednesday, the 10th day of April, 1872, be * * * especially set apart and consecrated to tree planting in the State of Nebraska and the State board of agriculture hereby name it Arbor Day." The resolution was adopted, and prizes were offered to the county agricultural society and to the individual who should plant the greatest number of trees. Wide publicity was given to the plan, and over a million trees were planted in Nebraska on that first Arbor Day.

SPREAD OF THE OBSERVANCE OF ARBOR DAY

Arbor Day has been celebrated in Nebraska with enthusiasm from its very beginning to the present day. Tree planting was no new thing there when the Arbor Day plan was originated by Mr. Morton, for the first settlers found that the lack of trees was a serious drawback, and some attempt was soon made to supply the deficiency.

Every farmer needs wood for fuel and fence posts. Just as imperative is the need of protection for orchards (fig. 1), field crops, and buildings from the winds that sweep unhindered over that vast plains region. Before 1872, however, tree planting had been haphazard. The adoption of the Arbor Day plan meant the organization of the work. Thereafter the people of Nebraska were being continually reminded of the desirability of planting trees and at the same time were furnished with instructions regarding the choice of species and how to plant and care for them. Planting was given an added impetus when the Halsey nurscry, operated by the Federal Forest Service, was established in 1902. From being practically a treeless State, only about 3 per eent of the total area having originally been eovered with natural timber, Nebraska has become one of the leaders in practical forestry and is so much identified with tree raising that

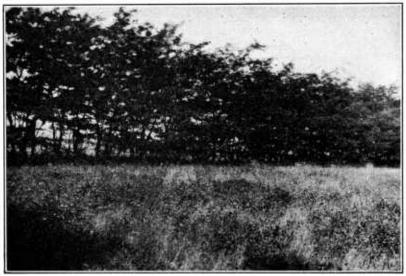


FIGURE 1.-Locust windbreak, Seward County, Nebr.

on April 4, 1895, the legislature passed a resolution that the State

be popularly known as the Tree Planter's State.

Under the Kineaid Act, the Forest Service distributed 2,000,000 young trees from the Federal nursery to 10,000 residents, in addition to the planting which was done on Government land in the Nebraska National Forest. Trees planted in Nebraska under this aet 28 years ago are now 30 to 40 feet in height.

Under section 4 of the Clarke-MeNary law of 1924, which superseded the Kineaid Act, the extension service of the Nebraska College of Agriculture now distributes tree planting stock to farmers. service started in 1926. Nearly 2.000,000 trees already have been

planted in Nebraska under the terms of this law.

¹Tree Planting and Landscape Beautification in Nebraska. Plan and Organization: Bulletin 11, Conservation Department, Conservation and Survey Division, the University of Nebraska, Lincoln, Nebr., Mar. 16, 1929.

On April 4, 1930, 58 years after the first observance of Arbor Day, the Nebraska State superintendent of public instruction, in a proclamation to county and city superintendents of schools said in part:

The success which has been achieved on the Nebraska National Forest indicates that we can grow trees in Nebraska. This office solicits your earnest cooperation in carrying on a program of tree planting and landscape beautification in connection with the school so that the entire community may be stimulated to new activity along this line. It will not do for Nebraska to permit other States to outdo us in this matter. We must bestir ourselves if we hope to be worthy of the name "The Tree-Planters' State."

Kansas and Tennessee followed the lead of Nebraska in 1875, and the next year Minnesota fell into line. In Kansas the same comparatively treeless conditions as in Nebraska made the plan of immediate economic importance. In Minnesota the white pine forests were being destroyed with alarming rapidity, and no provision was being made for replacing them.

After 1876 there was for some years a check in the spread of the Arbor Day idea, and it was not until 1882 that two more States be-

gan to celebrate the day—North Dakota and Ohio.

Before 1882 the efforts to extend the celebration of Arbor Day had been made through agricultural associations and town authori-The first celebration of the day in Ohio, which was held during the sessions of a national forestry convention at Cincinnati, took an entirely new form at the suggestion of Warren Higley, president of the Ohio Forestry Commission. Under the direction of Superintendent of Schools John B. Peaslee, the school children of the city had a prominent part in the celebration, which included a parade through the streets to Eden Park, where trees were planted in memory of distinguished men. About 20,000 children participated in the singing and reciting and in putting the soil about the trees, which had already been set in place. Two new elements were introduced into the Arbor Day plan on this occasion—the day was made a school festival and the practice of planting memorial trees and groves was inaugurated. These new developments were largely responsible for the extension of Arbor Day over the rest of the United States and beyond. Tree planting by school children became a festival combining pleasure, utility, and instruction; and one of the greatest benefits of the observance of Arbor Day has been its effects in impressing upon the minds of the young people the value of trees and the necessity of conserving all the natural resources of the country. (Fig. 2.)

The American Forestry Congress in 1883, at St. Paul, Minn., passed a resolution recommending the observance of Arbor Day in the schools of every State and a committee was appointed to demonstrate to school authorities the value of Arbor Day celebrations. N. G. Northrop, of Connecticut, author of the resolution, was made chairman of this committee. At the annual meeting of the National Educational Association in 1884 he offered a resolution similar to that adopted at St. Paul, and although no action was taken then the

next year the association adopted the following:

Resolved, That in view of the valuable results of Arbor Day work in the six States where such a day has been observed, alike upon the school and the home, this association recommends the general observance of Arbor Day for schools in all our States.

As a school festival the observance of Arbor Day has spread not only throughout the whole United States but far beyond its borders. In 1887 the educational department of Ontario set aside the first Friday in May as a tree and flower planting day. In 1895 the plan was adopted officially in Spain. It reached Hawaii in 1905, and is now in vogue in all the dependencies of the United States and in Great Britain, Canada, Australia, the English West Indies, South Africa, New Zealand, France, Norway, Russia, Japan and China.

To commemorate the golden anniversary of Arbor Day, April 22, 1922, President Harding issued a proclamation on March 31 of that

year urging the governors of the various States-

to designate and set apart the week of April 16-22, 1922, as forest-protection week, and the last day of that week, April 22, as the golden anniversary of



F-226811

FIGURE 2.—Water, as well as wood and other necessities of civilization, has its source in the forest. Bald River Falls, Cherokee National Forest, Tenn.

Arbor Day and to request officers of public instruction, or counties, cities, and towns, and of civic and commercial organizations to unite in thought and action for the preservation of our common heritage by planning such educational and instructive exercises as shall bring before the people the disastrous effects of the present waste by forest fires and the need of individual and collective effort to conserve the forests and increase our tree growth for ornament and use.

TIME OF ARBOR DAY

The time of the observance of Arbor Day varies greatly in different States and countries, being determined somewhat by climatic conditions. In many States it is combined with Bird Day. In general the date is early in the year in the South and is set further along

toward summer in the more northern States. In some States it is in the fall and in others two dates are set, one in the spring and the other in the fall. (Table 1.)

Table 1.—Dates on which Arbor Day is observed

State and Territory	First ob- served	Law en- acted	Time of observance
Alabama	1887		In the spring, often on Audubon or Bird Day the governor
Arizona	1890		issues a proclamation each year. In five northern counties, Friday following first day of April;
A mlmamana	1906	1905	elsewhere, Friday following first day of February. First Saturday in March.
Arkansas California	1886	1909	March 7, birthday of Luther Burbank.
Colorado	1885	1889	Third Friday in April. The governor issues a proclamation each year.
Connecticut	1886	1886	In the spring, by proclamation of the governor.
Delaware	1901 (?)		In April, by proclamation of the governor. Third Friday in April, by proclamation of the commissioners.
Delaware District of Columbia	1920		Third Friday in April, by proclamation of the commissioners.
Florida	1886		First Friday in February. First Friday in December.
Georgia	1887	1890	First Friday in December.
Hawaii	. 1905		In November, before the winter rains; by proclamation of the governor.
Idaho	1886	1903	Various dates in April, selected by county superintendents of schools.
Illinois	1887	1887	In April and October, by proclamation of the governor.
Indiana	1884	1913	Second Friday in April.
Iowa	1887		Proclamation of the governor.
Kansas	1875		Option of the governor.
Kentucky	1886		In the fall, by proclamation of the governor.
Louisiana	1888		Second Friday in January, by resolution of State board of education.
Maine	1887		In the spring by proclamation of the governor, usually about the middle of May.
Maryland	1884	1884	First or second Friday in April by proclamation of the gov- ernor.
Massachusetts	1886		Last Saturday in April, by proclamation of the governor.
Michigan	1885		In April or May, by proclamation of the governor.
Minnesota	1876		Latter part of April, by proclamation of the governor, usually upon the suggestion and recommendation of the State forest
Mississippi	1890		service. December or February; law authorizes State board of education to fix date.
Missouri	1886	1889	First Friday after first Tuesday in April.
Montana	1888	1887	Second Tuesday in May.
Nebraska	1872	1885	Second Tuesday in May. April 22, birthday of J. Sterling Morton—legal holiday.
Nevada	1887		HV proclamation of governor
New Hampshire	1886		Early in May, by proclamation of governor.
New Jersey	1884	1908	Second Friday in April.
New Mexico New York	1890 1889	1889	Early in May, by proclamation of governor. Second Friday in April. Second Friday in March, by proclamation of the governor. Date varies in different localities of State. By proclamation
North Carolina	1893	1915	of the commissioner of education. Friday following the 15th of March
North Dakota	1882		Option of the governor. Proclamation. About the middle of Apill, by proclamation of the governor. Friday following the second Monday in March. Second Friday in February in western Oregon; second Friday
Ohio	1882	1902	About the middle of April, by proclamation of the governor.
Oklahoma	1898	1901	Friday following the second Monday in March.
Oregon	1889		Second Friday in February in Western Oregon; second Friday in April in eastern Oregon.
Pennsylvania	1887	1887	In the spring, by proclamation of the governor, and in the fall by authorization of superintendent of public instruc-
Philippine Islands	1906		tion. Usually late in September or early in October, by proclama-
			tion of the governor.
Porto Rico			Last Friday in November.
Rhode Island	1887	1887	Second Friday in May—public holiday. Third Friday in November.
South Carolina South Dakota	1898 1884	1898	No law, but generally observed in April throughout the
			State.
Tennessee Texas	18 7 5 18 90	1887 1889	First Friday in April, by proclamation of the governor. February 22—Washington's Birthday.
Utah			April 15.
$Vermont_{}$	1885		Usually first Friday in May; option of the governor.
Virginia	1892	1902	In the spring, by proclamation of the governor.
Washington	1894		Usually the first Friday in May, by proclamation of the governor.
West Virginia	1883		Usually observed on the second Friday in April.
Wisconsin	1892 1	1889 1888	Usually observed on the first Friday in May. In the spring, by proclamation of the governor.

¹ First general observance in the State.

More than half of the States have enacted a law for the observance of Arbor Day. In the other States and also in the Territories the day is observed by proclamation of the governor, authorization of the superintendent of education, or by other action. In at least two of the States—Nebraska and Rhode Island—the day has been made a public holiday.

ARBOR DAY AND THE SPIRIT OF CIVIC BETTERMENT

Yearly tree plantings have such a far-reaching effect on the community spirit, and through that on civic and social betterment, that no community can afford to neglect them. A clean and beautiful town is a source of pride to its citizens and a constant incentive to them to go on and do better. A slovenly town is apt to mean slovenly inhabitants. The celebration of Arbor Day may very well be the turning point in the attitude of the community toward its civic duties and by consequence toward its social life and its manner of conducting business. Nothing so helps to beautify a city or town as trees, and few things so educate the people in public spirit and fore-

sight as the care of trees.

The celebration of Arbor Day by the planting of trees is the assumption of an all-the-year-around responsibility. Care of the trees is as important as actual planting. An essential part of the Arbor Day program is the assignment of subsequent care of the trees to individuals or organizations, such as Boy or Girl Scouts, particular classes in a school, civic associations, or other such bodies. The assignment should be definite and the responsibility clearly defined. Only in this way will the purpose of the planting be achieved. It is not enough to put a tree in the ground and sing a song over it. Some one must see that it has the water, light, and soil fertility necessary to enable it to grow, and that it is properly equipped with guard and stake where there is danger of its being injured. If this is neglected, the fruits of the planting may be thrown away; if it is properly attended to, the result will be a source of pride and inspiration to the whole community.

Arbor Day plantings also lead to greater appreciation of the beauty and civic value of trees, shrubs, and vines in parks and woodlands. No one who has come to a full realization of this beauty and value will strip dogwood, laurel, or other flowering shrubs and trees, or ruin them permanently for the sake of temporary personal gratification. The spirit of Arbor Day rules out the thoughtless, unsportsmanlike habit of "helping yourself regardless" and substitutes the principle of helping your community, your State, and your country. Arbor Day teaches not only that such a principle is gener-

ous and public spirited but that it pays in the long run.

In this connection many people are troubled about the question of cutting evergreens for Christmas trees, which have become inseparable from the full celebration of Christmas, especially where there are children. A more intimate knowledge of the principles of forestry will make the answer plain. Forestry looks not only to the perpetuation but also to the wise and proper use of forests and woodlands. It is possible, by careful selection of trees to be cut, to obtain evergreen trees for Christmas not only without injury but often with

positive benefit to the forest, just as it is possible to thin out stands of young trees for fuel and obtain faster growth and greater returns in saw timber from the remaining trees. In other words, Christmas trees, like other trees, should be cut in accordance with the principles of forestry. In some places Christmas-tree plantations are managed to supply the demand, especially near large consuming centers or where suitable evergreens do not grow naturally in abundance. Emphasis needs to be put on proper care in selecting the trees to be cut rather than on restriction of the use of Christmas trees. Indeed, if properly directed, there is no reason why the joy associated with the Christmas evergreen may not be a means of arousing in the minds of young children an appreciation of the beauty and usefulness of trees; and keen appreciation of the beauty and use



-201679

FIGURE 3.—Pine plantation, Natural Bridge National Forest, Va. A place where evergreens will grow in abundance

fulness of trees is a long step toward the will to plan and eare for them, to use them wisely, to provide for their perpetuation, and in every way to respond to the inspiration of the spirit of Arbor Day. In the half century since its first celebration Arbor Day has

In the half century since its first eelebration Arbor Day has become firmly entrenehed in the traditions of our eountry. It already has its place in our history. But the spirit of the day is unique in that it looks not backward but always forward. It directs the eyes of all not toward some achievement of the past but to a goal to be reached in the future. It eelebrates not what we have done but what we hope and determine to do now and in the days to come. It appeals to the spirit of youth and to all that is generous and forward looking in men of every age. It carries with it the inspiration to work toward the betterment of the community, the State, and the Nation.

PLANTING OF TREES ALONG THE STREETS AND HIGHWAYS

The attractiveness of many of our cities is due in large measure to the trees planted along their streets. The esthetic advantages of roadside trees are obvious; a barren highway in the country is unattractive and uncomfortable, one planted to trees has the double

attractiveness of beauty and shade.

Although Arbor Day has often been the inspiration that led to the adoption of a plan of street or road planting the best results from such a plan are obtained when it is carried out by some stable organization. This insures not only proper care, but better coordination of effort and especially steady progress from year to year. For city streets the actual planting is now usually in charge of a shade tree commission, park board, or other officials, who see that trees suitable to the width and other characteristics of the particular street are planted and that the planting is uniform as regards species and the arrangement of the trees. (Fig. 4.) On the highway, as in the city streets, planting plans must be in harmony with laws, regulations, and construction plans for the roadway, and the authorities in charge of these matters must be consulted before deciding on what stretches of roadway to plant, species to plant, spacing, and other particulars.

Several of the States have enacted legislation authorizing roadside planting by the State agencies.² Motor associations and others have encouraged the planting of roadside trees. The General Federation of Women's Clubs has advocated a comprehensive plan for planting along the Lincoln Highway. Interest in street and highway planting continues to increase, along with interest in forestry and the conservation of our timber supplies. Roadside tree planting has been made the subject of two publications issued by the Department of Agriculture—Farmers' Bulletin 1481, Planting the Roadside, and Farmers' Bulletin 1482, Trees for Roadside Planting. These bulletins deal at length with both the general principles and many of the details of roadside planting plans, selection of species,

and planting and care of trees.

FOREST PLANTING ON FARMS

By means of planting small forest trees on unused or badly washing farm land the owners can bring their lands back to production. This is a good way of putting land to work, thereby increasing the value of the land and later making it bring in a money return.

The Secretary of Agriculture is authorized by the Clarke-McNary forestry law to cooperate with the various States in producing and distributing forest tree seeds and plants for the purpose of establishing windbreaks, shelter belts, and farm woodlands upon denuded and nonforested lands within such cooperating States. Prior to the enactment of this law a few of the States had extended assistance to landowners and particularly farmers in reforesting cut-over lands and establishing and improving woodlands. Low-priced planting stock such as is essential in farm planting was not, however, generally available throughout the country.

² See Farmers' Bulletin 1481, Planting the Roadside, for a fuller discussion.

The passage of the law has materially stimulated the States to supply the types of planting stock best suited to farm planting and in quantities sufficient to meet the constantly growing demand. Over 30,000,000 young trees are annually distributed to farmers from the State nurseries. The cost of these trees varies in the individual



FIGURE 4.—American clms, Middletown, Conn. The Gothic arch of the American elm is peculiarly adapted to sidewalk and avenue beautification and shade

States with the age and kind of stock from a nominal charge to cover postage and packing up to an average of about \$5 per thousand.

Table 2 indicates the cooperating States and the names and addresses of the agencies to which application for young trees to be used in farm planting may be made.

Table 2.—Officials to whom application should be made for planting stock

	I	
State	Designation	State officer and address
Alabama	Commission of Forestry	Page S. Bunker, State Forester, Mont-
California	State Board of Forestry	gomery, Ala. M. B. Pratt, State Forester, Sacramento,
Colorado	State Agricultural College, Depart-	Calif. W. J. Morrill, State Forester, Fort Collins,
Connecticut	ment of Forestry. Connecticut Agricultural Experiment Station.	W. O. Filley, Forester, New Haven, Conn.
DelawareFlorida	State Forestry Department Florida Board of Forestry	W. S. Taber, State Forester, Dover, Del. Harry Lee Baker, State Forester, Talla-
Georgia	State Board of Forestry	hassee, Fla. B. M. Lufburrow, State Forester, State Capitol, Atlanta, Ga.
Hawaii	Board of Agriculture and Forestry	C. S. Judd, Executive Officer, Honolulu, Hawaii.
Idaho	University of Idaho, School of For-	F. G. Miller, Dean, Moscow, Idaho.
Indiana	estry. Department of Conservation, Divi-	Ralph F. Wilcox, State Forester, Indianapo-
Iowa Kansas	sion of Forestry. Iowa State College Kansas State Agricultural College	lis, Ind. G. B. MacDonald, Ames, Iowa. Albert Dickens, State Forester, Manhattan,
Kentucky	State Department of Agriculture	Kans. W. E. Jackson, jr., State Forester, Frank- fort, Ky.
Louisiana	Department of Conservation, Division of Forestry.	
Maine	State Forest Service	V. H. Sonderegger, Superintendent of Forestry, New Orleans, La. Neil L. Violette, Forest Commissioner, Augusta, Me.
Maryland	University of Maryland, State Department of Forestry.	F W Resley State Forester 1411 Fidelity
Massachusetts	Department of Conservation, Division of Forestry.	Building, Baltimore, Md. W. A. D. Bazeley, State Forester, State House, Boston, Mass.
Mississippi	State College of Agriculture State Forestry Commission	A. K. Chittenden, East Lansing, Mich. Fred B. Merrill, State Forester, Jackson,
Missouri	State Board of Agriculture, Depart-	Miss. Frederick Dunlap, State Forester, Colum-
Montana	ment of Forestry. State Forest Department	bia, Mo. Rutledge Parker, State Forester, Missoula,
Nebraska	University of Nebraska, College of	Mont. Clayton W. Watkins, Extension Forester,
New Hampshire	Agriculture. New Hampshire Forestry Commis-	Lincoln, Nebr. J. H. Foster, State Forester, Concord, N. H.
New Jersey	sion. Department of Conservation and Development, Division of Forests and	C. P. Wilber, State Forester, Trenton, N. J.
New York	Parks. Conservation Commission, Division of Lands and Forests.	Wm. G. Howard, Superintendent, Lands and Forests, Albany, N. Y.
North Carolina	Department of Conservation and Development.	J. S. Holmes, State Forester, Raleigh, N. C.
North Dakota	State Forestry Department	F. E. Cobb, State Forester, Bottineau, N. Dak.
Ohio	Agricultural Experiment Station, Department of Forestry.	Edmund Secrest, State Forester, Wooster, Ohio.
Oklahoma	Oklahoma Forest Commission	Geo. R. Phillips, Secretary, Oklahoma City, Okla.
Oregon	State Board of Forestry	L. F. Cronemiller, State Forester, Salem, Oreg.
Pennsylvania Porto Rico	Department of Forests and Waters Department of Agriculture and Labor_	J. S. Illick, State Forester, Harrisburg, Pa. Wm. P. Kramer, Insular Forester, Rio Pied-
Tennessee	Department of Agriculture, Division	ras, P. R. James O. Hazard, State Forester, Nashville,
Utah	of Forestry. Utah State Agricultural College	Tenn. Board of Trustees, Utah State Agriculture
Vermont	State Forest Service	Board of Trustees, Utah State Agriculture College, Logan, Utah. Perry H. Merrill, Commissioner of For-
Virignia	State Geological Commission, For-	estry, Montpelier, Vt. Chapin Jones, State Forester, University, Va.
Washington	estry Department. State College of Washington, Agri-	E. C. Johnson, Director, Pullman, Wash.
West Virginia	cultural Experiment Station. Game, Fish and Forestry Commis-	H. S. Newins, Chief Forester, Charleston, W. Va.
Wisconsin	sion. State Conservation Commission	C. L. Harrington, Superintendent State Forests and Parks, Madison, Wis. W. T. Quayle, Director, State Experimental
Wyoming	University of Wyoming Experiment Station.	W. T. Quayle, Director, State Experimental Farms, Laramie, Wyo.
	·	

MEMORIAL TREES

When the World War came to an end in November, 1918, the thoughts of the Nation turned at once to finding appropriate memorials for those who had fallen for the cause of world freedom. For this purpose it seemed especially fitting that each community commemorate the sacrifice made by its own citizens by planting, with suitable ceremonies, groves or avenues of trees, which should serve as living monuments to the fallen soldiers.3 Many organizations took up the idea, and the Secretary of Agriculture addressed a letter to the governors of the States suggesting that they "commend to the citizens of their States, and particularly to those in attendance upon its schools, such an observance of Arbor Day as will secure a widespread planting of trees, dedicated to those whose lives have been sacrificed in the great struggle to preserve American rights and the civilization of the world." Thousands of memorial-tree plantings have been made since that time; single trees in memory of individuals, memorial plantings along streets and highways, groves in parks, and on community grounds. The custom has also been extended to include trees and groves in honor of patriotic and civic organizations and to mark historic spots.

TREES TO PLANT

The permanent success of the Arbor Day plan, as of any other plan involving tree planting, is conditioned upon the selection of the right species and upon proper attention to the planting and the subsequent care of the trees. So various are the conditions of soil, climate, and site in the United States that it would take a volume to discuss adequately the species suitable for planting in the different regions and localities. The list given on pages 13, 14, and 15 is merely a suggestion of species generally hardy in the several States. The absence of any particular species from the list does not necessarily mean that it is unsuitable or inferior. Nor is it certain that the species included will thrive on any particular site. Soil aspect, elevation, and many other factors are important in the consideration of what species is most suitable, and it is recommended that assistance be obtained from State authorities before planting. In practically every State there is now a forestry department, State horticulturist, agricultural college, or other agency from which may be obtained suggestions as to the best kinds and sizes of trees to be planted for different purposes, as well as information on the time to plant, the methods of planting, and the proper spacing of trees. Before undertaking any Arbor Day planting program inquiry should be made of the State authorities in regard to these points.

Detailed information on planting and caring for trees may be found in the following publications, copies of which may be obtained free, as long as the supply lasts, by addressing the Office of Information, United States Department of Agriculture, Washington, D. C.

Farmers' Bulletin 1208, Trees for Town and City Streets. Farmers' Bulletin 1209, Planting and Care of Street Trees. Farmers' Bulletin 1482, Trees for Roadside Planting.

³ See list in Farmers' Bulletin 1482, Trees for Roadside Planting.

Farmers' Bulletin 1481, Planting the Roadside.
Farmers' Bulletin 1591, Transplanting Trees and Shrubs.
Farmers' Bulletin 1453, Growing and Planting Coniferous Trees on the Farm. Farmers' Bulletin 1123, Growing and Planting Hardwood Seedlings on the

Department Bulletin 863, Forestry Lessons on Home Woodlands,

Farmers' Bulletin 1377, Care and Improvement of the Farm Woods.
Farmers' Bulletin 1312, Tree Planting in the Great Plains Region.
Farmers' Bulletin 1071, Making Woodlands Profitable in the Southern States. Farmers' Bulletin 1628, Growing Black Walnut Trees, will be of interest to tree-planting farmers, especially in the Eastern States.

Another publication, Forestry Clubs for Young People, Miscellaneous Publication No. 45 of the United States Department of Agriculture, contains suggestions for activities and courses of study related to the Arbor Day idea. This publication also is available for free distribution as long as the supply lasts.



FIGURE 5.—Trees of characteristically attractive form—sugar maples and American clm

A few general principles should always be kept in mind in selecting trees to plant. Every species has a characteristic habit of growth and it is desirable to select trees which have the greatest natural beauty of form consistent with hardiness and freedom from disease and insect pests in the location where they are to be planted. (Fig. 5.) In the case of deciduous species the tree in winter may well be the basis, at least in part, of this choice, for then the eye is not distracted from consideration of form by the beauty of the leaves. The form chosen not only should be beautiful, but should harmonize with the position in which the tree is to be placed; as, for instance, narrow columnar crowns for narrow streets, broad spreading crowns for wide avenues, evergreens, in most cases, for screens, and deciduous trees near dwellings or schoolhouses. Native trees are often to be preferred, for the reason, that they are known to flourish under the soil

⁴ Supply for free distribution is exhausted. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10 cents each.

and climatic conditions of the region. Long-lived species, tough species that will not easily break or drop branches in high winds, and disease-resistant trees and those free from insect pests, are to be sought. Trees that sprout from the roots, such as poplar and black locust; have disagreeable odors, such as ailanthus; or are untidy or lose their leaves early, are in most cases to be avoided.

The species included in the following list are generally hardy in the State indicated, though for any particular site it is best to obtain the advice of local or State authorities. The list is only suggestive and the absence of any species does not necessarily mean that it is

unsuitable.

Alabama.-Native pines, live oak, willow oak, laurel oak, evergreen magnolia,

holly, red (sweet) gum, and dogwood.

Arizona.—Arizona and smooth cypresses, American elm, Chinese elm, native cottonwood, silverleaf poplar, honey locust, boxelder, Arizona sycamore, green ash, black locust, hackberry, and tamarisk.

Arkansas.—Chinese arborvitae, shortleaf pine, white oak, black oak, willow oak, sugar maple, red maple, evergreen magnolia, American elm, hickories, hack-

berry, red gum (sweet gum), and holly.

California.—Foothills regions—Lawson's cypress (Port Orford cedar), deodar cedar, California juniper, Monterey cypress, big tree, London (oriental) plane, incense cedar.

Coastal region.—Aleppo pine, Monterey pine, redwood, Monterey cypress, English elm, California sycamore, London (oriental) plane, California walnut, madroña, bigleaf maple, California live oak.

Valley region.—Incense cedar, big tree, Monterey cypress, coulter pine, Norfolk Island pine, deodar cedar, English elm, valley oak, blue gum, red gum, California sycamore.

Colorado.—Plains region—Western yellow pine, Rocky Mountain red cedar, American elm, Chinese elm, honey locust, hackberry, Russian-olive, silver poplar. Mountain region.—Blue spruce, Douglas fir, white fir, western yellow pine, native cottonwoods, and boxelder.

Connecticut.—Norway pine, white spruce, white oak, red oak, black oak, pin oak, sugar maple, red maple, Norway maple, white ash, American elm, sycamore, black walnut, horse chestnut, basswood, beech, and canoe (paper) birch.

Delaware.—Norway spruce, white spruce, arborvitae (northern white cedar), southern white cedar, eastern hemlock, white oak, black oak, pin oak, willow oak, sugar maple, Norway maple, red maple, white ash, holly, black alder, Lombardy poplar, American elm, red (sweet) gum, London (oriental) plane, beech, basswood, and weeping willow.

Florida.—North—Live oak, laurel oak, Washington palm, Canary Island date

palm, cabbage palmetto, slash pine, and longleaf pine. South.—Australian pine, silk oak, evergreen magnolia, coconut and royal

Georgia.—Deodar cedar, bald (southern) cypress, Carolina and eastern hemlocks, white oak, black oak, willow oak, laurel oak, pin oak, post oak, live oak, red maple, sugarberry, redbud, fringetree, sweet gum, sweet bay, holly, evergreen

magnolia, and native pines.

-Blue spruce, Engelmann spruce, white fir, Douglas fir, Rocky Mountain red cedar, jack pine, western yellow pine, paper birch, Norway maple, sycamore maple, green ash, weeping willow, black cottonwood, narrowleaf cottonwood, aspen, Balm-of-Gilead poplar, hackberry, boxelder, American elm, cork elm, honeylocust, and black locust.

Illinois.—White pine, Norway spruce, arborvitae (northern white cedar), European larch, swamp white oak, black oak, bur oak, pin oak, red oak, Norway maple, sugar maple, tuliptree (yellow poplar), sycamore, basswood, black walnut, American elm, hackberry, shellbark and bitternut hickories, and ginkgo.

Indiana .- Arborvitae (northern white cedar), white oak, red oak, pin oak, sugar maple, Norway maple, red maple, basswood, swamp white oak, black

walnut, tuliptree (yellow poplar), sycamore, American elm, and ginkgo.

Iowa.—Arborvitae (northern white cedar), Norway spruce, white pine, white oak, pin oak, red oak, paper birch, Norway maple, sugar maple, American elm, sycamore, hackberry, and white ash,

Kansas.—Chinese arborvitae, Scotch pine, pin oak, green ash, hackberry, honey locust, Russian-olive, sycamore, black walnut, American elm, and Chinese elm.

Kentucky.—Pin oak, red oak, bur oak, overcup oak, Norway maple, sugar maple, red maple, white ash, sycamore, basswood, tuliptree (yellow poplar), ginkgo, black walnut, cucumber magnolia, and hickories.

Louisiana.—Southern cypress, laurel oak, live oak, southern red oak, post oak, evergreen magnolia, winged elm, sugarberry, sycamore, red (sweet) gum, and native pines.

Maine.—European larch, arborvitae (northern white cedar), red spruce, white spruce, red pine, red oak, paper birch, red maple, American elm, thorn tree, beech, and basswood.

Maryland and the District of Columbia.—Arborvitae (northern white cedar), white oak, pin oak, red oak, willow oak, Norway maple, red maple, London (Oriental) plane, American elm, basswood, European lindens, tuliptree (yellow poplar), beech, dogwood, red (sweet) gum, and ginkgo.

Massachusetts.—White pine, red pine, white spruce, red spruce, arborvitae (northern white cedar), red oak, pin oak, European and native white birches, supar maple, Norway maple, mountain ash, European lindens, London (Oriental) plane, American elm, horse chestnut, beech, black walnut, and butternut.

Michigan.—White pine, red pine, arborvitae (northern white cedar), Norway spruce, eastern hemlock, balsam fir, red oak, bur oak, yellow birch, sweet birch, sugar maple, red maple, American elm, rock elm, and beech.

Minnesota.—Norway pine, white pine, white spruce, arborvitae (northern white cedar), paper birch, sugar maple, red maple, green ash, white ash, American elm, basswood, and boxelder.

Mississippi.—Laurel oak, willow oak, live oak, southern red oak, sugarberry. winged elm, sweet gum, evergreen magnolia, sycamore, holly, native pines, and dogwood.

Missouri.—Shortleaf pine, oaks, sugar maple, red and green ashes, American elm, hackberry, red (sweet) gum, tuliptree (yellow poplar), black gum, evergreen magnolia, holly, and redbud.

Montana.—Douglas fir, Engelmann spruce, Rocky Mountain red cedar, green ash, cottonwood, boxelder, and black locust.

Nebraska.—Western yellow pine, Scotch pine, jack pine, bur oak, green ash, honey locust, hackberry, Russian-olive, American elm, and native cot-

tonwoods. Nevada.—Black locust, Chinese poplar, boxelder, tamarisk, native cotton-

woods, and Chinese elm.

New Hampshire.—Norway and white spruces, red pine, white pine, paper birch, sugar maple, white ash, American elm, beech, and basswood.

New Jersey .- Pin oak, red oak, white oak, Norway maple, green ash, American elm, hackberry, European linden, honey locust, black locust, tuliptree (yellow poplar), sycamore, black walnut, London (Oriental) plane, red (sweet) gum, and black gum.

New Mexico.—Green and Arizona ashes, native cottonwood, black locust, Russian mulberry, tamarisk, Russian-olive, and Chinese elm.

New York.—White spruce, blue spruce, white pine, Scotch pine, red pine, balsam fir, eastern hemlock, arborvitae (northern white cedar), white oak, black oak, red oak, pin oak, basswood, beech, sugar maple, Norway maple, and American elm.

North Carolina.-Loblolly pine, longleaf pine, white oak, black oak, post oak, southern red oak, evergreen magnolia, holly, hickories, black walnut, redbud, tuliptree (yellow poplar), sycamore, red (sweet) gum, and basswood.

North Dakota.—Jack pine, Scotch pine, western yellow pine, bur oak, green ash, white willow, boxelder, black walnut, American elm, hackberry, balsam poplar, Norway poplar, and Russian-olive.

Ohio.—European larch, white pine, Scotch pine, Norway spruce, blue spruce, white spruce, arborvitae (northern white cedar), white oak, red oak, pin oak, black oak, white birch, sugar maple, Norway maple, red (sweet) gum, tuliptree (yellow poplar), horse chestnut, beech, and basswood.

Oklahoma.—Chinese arborvitae American elm, winged elm, cottonwood, Russian-olive, Russian mulberry, black walnut, Osage-orange, black locust, sycamore, and London (Oriental) plane.

Oregon.—Western white pine, western yellow pine, Douglas fir, Norway maple, bigleaf maple, green ash, Russian poplar, white willow, English elm, black locust, and boxelder.

Pennsylvania.-Red pine, arborvitae (northern white cedar), Norway spruce, red oak, pin oak, European white birch, paper birch, sweet birch, red maple, sugar maple, Norway maple, tuliptree (yellow poplar), American elm, slippery elm, black walnut, sycamore, beech, and hickories.

Rhode Island .- White oak, black oak, bur oak, river birch, European white birch, red maple, sugar maple, Norway maple, American elm, yellow poplar

(tuliptree), black walnut, and hickories.

South Carolina.—Bald (southern) cypress, live oak, willow oak, laurel oak, southern red oak, red maple, redbud, sugarberry, sycamore, basswood, tuliptree (yellow poplar), evergreen magnolia, ginkgo, pecan, and native pines.

South Dakota.—Rocky Mountain red cedar, Scotch pine, jack pine, western yellow pine, green ash, American elm, boxelder, native cottonwoods, Russian-

olive, and hackberry.

Tennessee.—Eastern hemlock, southern cypress, willow oak, red oak, white oak, pin oak, sugar maple, red maple, American elm, tuliptree (yellow poplar), basswood, sugarberry, black gum, red (sweet) gum, evergreen magnolia, and

Texas.—East—Bald (southern) cypress, longleaf pine, Chinese arborvitae, pin oak, post oak, southern red oak, black oak, Texas red oak, willow oak, live oak, green ash, sycamore, American elm, cedar elm, red (sweet) gum,

sugarberry, pecan, and evergreen magnolia.
West—Alligator juniper, one-seed juniper, green ash, Texas ash, native cottonwoods, Chinese elm, tamarisk, China tree, Texas umbrella-tree (umbrella China-tree), black locust, boxelder, nogal and Mexican walnut, Osage-orange, hackberry, western soapberry, and desert willow.

Utah.—Blue spruce, Rocky Mountain red cedar, western yellow pine, Scotch

pine, jack pine, Austrian pine, silver maple, green ash, black locust, hackberry,

sycamore, boxelder, and native cottonwoods.

Vermont.—Balsam fir, tamarack, white spruce, white and red pines, sugar and Norway maples, American elm, beech, yellow birch, and basswood.

Virginia.—White and red oaks, black oak, willow oak, southern red oak, red maple, red and green ashes, horse chestnut, winged and American elm, black walnut, sycamore, London (Oriental) plane, tulip tree (yellow poplar), basswood, dogwood, ginkgo, and honey locust.

Washington.—East—Western yellow pine, Rocky Mountain red cedar, cotton-

woods, and boxelder.

West—Douglas fir, yellow pine, western white spruce, western white pine, Port Orford cedar, lowland white fir, Garry oak, paper birch, bigleaf maple, and madrona.

West Virginia.—White pine, tamarack, red spruce, eastern hemlock, arborvitae (northern white cedar), pin oak, red oak, yellow birch, sugar maple, white ash, black walnut, American elm, cucumber tree, red (sweet) gum, red-

bud, holly, basswood, Hercules-club, flowering dogwood, and fringetree.

Wisconsin.—Norway pine, white pine, white spruce, Norway spruce, arborvitae (northern white cedar), white oak, bur oak, red oak, beech, yellow birch,

paper birch, sugar maple, white ash, American elm, and basswood.

Wyoming.—Western yellow pine, Rocky Mountain red cedar (Juniperus scopulorum), lodgepole pine, blue spruce, green ash, boxelder, American elm, Chinese elm, native cottonwoods, and Russian-olive. (Fig. 6.)

PLANTING SUGGESTIONS

The proper season for planting is not everywhere the same. Where spring is the best season—north of the thirty-seventh parallel generally—the right time is when the frost is out of the ground

and before budding or growth begins.

Trees can not be thrust into a rough soil at random and expected They should be planted in well-worked soil, well enriched. If they can not be set out immediately upon receipt, the first step is to prevent their roots from drying out in the air. This may be done by "heeling in" the trees—that is, burying the roots in fresh earth and packing it enough to exclude the air. Evergreens in particular, which are always transplanted with a base of earth

about the roots, are very easily killed by allowing the roots to become dry. Before planting cut off the ends of all broken or mutilated roots; if it is a broadleaf tree, prune the tree to a few main branches and shorten these. Evergreen trees should not be pruned.

Dig holes at least 3 feet in diameter and 2 feet deep. If the soil is poor, they should be 4 feet in diameter. Make the sides perpendicular and the bottom flat. Break up the soil in the bottom to the depth of the spade blade. Spread on the bottom 12 or 15 inches of good topsoil, free from sods or other undecomposed vegetable matter. On the top of this layer spread out the roots of the tree with none of them in a eramped position and cover them with 2

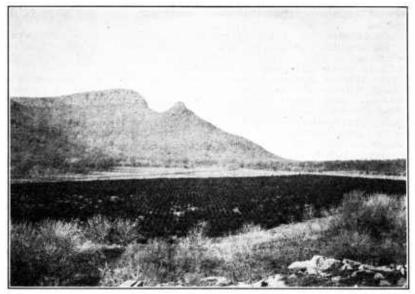


FIGURE 6.—Cedar Creek planting site, Wichita Game Preserve, Okla.

or 3 inches of fine topsoil. Firm the soil about the roots, water lightly, and after the water soaks in fill the hole with good earth, continuing to firm it, but leaving the surface loose and a little higher than the surface of the surrounding soil.

When planted the trees should stand about 1 inch deeper than they stood in the nursery. They should be planted far enough apart so that at maturity they will not be crowded. This is especially important, for the trees will not grow well unless they have an adequate supply of light and moisture. (For planting distances consult publications listed on pages 11 and 12.)

Young trees should not only be properly transplanted but should be cared for until they become so well established that they will grow without danger of dving of neglect.

CARING FOR THE TREES

Like any other plant, a tree requires light, water, and food. A newly planted tree especially must be tended to see that it does not suffer from lack of water, particularly during hot rainless periods.

Trees along city streets, or close-cropped lawns, etc., must be fed by spading in new soil or rotted manure or other plant foods, and the soil must be kept loose by spading lightly about the trunk before it becomes hard or packed. Systematic care must be taken to see that the young trees do not suffer from drought, starvation, or suffocation. In such locations it is advisable to protect the tree by a stake and a guard during the first four or five years at least. Whatever the location, provision must be made to protect the trees against insect or fungous attacks.

WOOD AND WATER

Manifestly there are thousands of trees of natural origin to every one planted by man. We have only in late years come to realize the necessity for taking care of these trees, having never before considered that they needed any care. With our forest dwindling rapidly,



FIGURE 7.—Plantation of white and red pines, York watershed, Pennsylvania

with the need for wood increasing, and with the saws working at a tremendous rate in the last great body of virgin timber in the United States—that in the Pacific Northwest—we have reached the point where we must choose timber growing now or timber shortage and distress in the not far distant future.

President Roosevelt, in his Arbor Day letter to the school children of the United States, laid particular stress on that side of the Arbor Day festival which teaches the necessity of careful use and perpetuation of our natural resources.

For the nation, as for the man or woman or boy or girl, the road to success is the right use of what we have and the improvement of present opportunity. If you neglect to prepare yourself now for the duties and responsibilities which will fall upon you later, if you do not learn the things which you will need to know when your school days are over, you will suffer the consequences. So any nation which in its youth lives only for the day, reaps without sowing, and consumes without husbanding, must expect the penalty of the prodigal whose labor could with difficulty find him the bare means of life.

A people without children would face a hopeless future; a country without trees is almost as helpless; forests which are so used that they can not renew themselves will soon vanish, and with them all their benefits. A true forest is not merely a storehouse full of wood, but, as it were, a factory of wood and at the same time a reservoir of water. When you help to preserve our forests or plant new ones you are acting the part of good citizens.

Forests are of immense importance in conserving and controlling the water needed for domestic and community uses (fig. 7), for irrigating farm lands, for generating electric power, and for regulating

and maintaining the flow of navigable streams.

Wherever there are no forests on the hills and mountains the rain and melted snow rush off in torrents, digging out great gullies and carrying away the fertile soil. Where there is a forest the trees protect the soil from the beating of the rain and the rush of snow water; the water soaks deep into the ground to be stored up there and gradually fed out by springs all the year round; the leaf litter absorbs and holds the water like a sponge; the trunks and roots prevent the rapid run-off of water and bind the soil together. Thus the forest is of tremendous benefit in preventing both floods and drought; and it is imperative that the watersheds of navigable streams and those upon which towns, cities, irrigation projects, and water-power plants depend for their supply should be forested. In a number of the States the areas surrounding municipal and private reservoirs are systematically planted by their owners with forest trees for the protection of the water supply.

COMMUNITY FORESTS

The most significant Arbor Day tree—the tree that means most to the Nation, the State, and the community—is the tree of the forest. The community that directs the impetus of Arbor Day celebration toward the establishment of a community forest—that is, a forest owned by the city, town, or county—is not only setting up a school of the woods for its citizens but is practically certain, with good management, to find itself in possession of a paying investment. Community forests may be so located as to be useful protectors of water supply, as well as serving for recreation grounds. They have also served in many cases to produce income from the sale of timber, provide employment, and generally improve the prosperity and well-being of the city, town, or county.

The national forests of the United States have a combined area of nearly 160,000,000 acres (fig. 8). State forests have a total of 12,500,000 acres. As such areas for public use and enjoyment have increased in number, the idea has gained impetus and the municipal or town forest is coming into community development all over the country. Twenty eight States and the District of Columbia contain muncipal and county forests and parks, with a total area of nearly three-quarters of a million acres. The States leading in area of muncipal and county forests, in the order of aggregate acreage, are New York, Oregon, Massachusetts, Colorado, North Carolina, New Jersey, Illinois, Maryland, Alabama, Ohio, Connecticut, Penn-

sylvania, Washington, Nebraska, and New Hampshire.

In this movement, New York State is well in the lead, with several hundred community forests aggregating approximately 175,000 acres in area, on which more than 20,000,000 trees of all the varieties furnished by the State nurseries, have been planted. Forest trees for planting on publicly owned land are supplied by the State without charge.

Such parks and forests are created and administered for various reasons, such as for protection of reservoirs and watersheds, game preserves or bird sanctuaries, public playgrounds or tourist camps, or for supplies of fuel and other forest products. Some, again, surround landmarks and spots of historic interest, or are established

as memorials to outstanding citizens.



F-211643

FIGURE 8 .- Virgin white-pine grove, Heart's Content, Allegheny National Forest, Pa.

There is no good reason why American communities should not more generally study the advantages, civic and financial, of such forests and come to regard them as indispensable, as do the cities and towns of some European countries. In Baden, for instance, out of 1,564 communities, 1,530 possess their own forests. These are managed by foresters who see that the best species are grown, that the timber is cut only when it has passed its most profitable period of growth, and that cutting is followed immediately by natural or artificial regeneration of young trees of valuable species. By the practice of forestry these forests are made to pay for their own maintenance and return a profit, instead of being supported by taxes. They are used for recreation areas. (Fig. 9.) Bird sanctuaries are often maintained in them. Beauty spots are preserved.

The community forest is an investment from every point of view. No better use could be made of the Arbor Day idea than to direct it toward the establishment and management of such forests. (Fig. 10.) Their benefits once realized, the communities owning them will most certainly prize them as highly as do European timber-owning communities.

FOREST WEEK

Closely associated with Arbor Day in its patriotic purposes is the custom of celebrating a forest week. The idea was originated by Herbert Evison, of the Washington Natural Parks Association, and forest week was first observed on the Pacific coast May 23–29, 1920, when Federal, State, and private agencies cooperated in an effort to bring about realization of the importance of preventing forest fires.



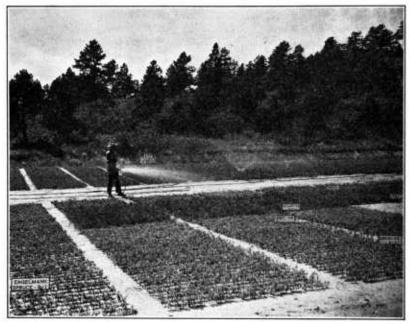
FIGURE 9.—Slash pine planted at Boy Scout camp ground, Georgia

In 1921 President Harding issued the first proclamation setting aside Forest Protection Week for national observance. Until 1925 the emphasis was laid entirely on preventing fire, the greatest destructive agency at work in our forests. In 1925 the purpose of the movement was broadened to include all phases of a national forest policy and was given the designation American Forest Week in a proclamation by President Coolidge, in part, as follows:

In proclaiming American Forest Week, I desire to bring to the attention of all our people the danger that comes from the neglect of our forests. We have too freely spent the rich and magnificent gift that nature bestowed on us. In our eagerness to use that gift we have stripped our forests; we have permitted fires to lay waste and devour them: we have all too often destroyed the young growth and the seed from which new forests might spring. And though we already feel the first grip of timber shortage, we have barely begun to save and restore.

We have passed the pioneer stage and arc no longer excusable for continuing this unwise dissipation of a great resource. To the Nation it means the lack of an elemental necessity and the waste of keeping idle or only partly productive nearly one-fourth of our soil. To our forest-using industries it means unstable investments, the depletion of forest capital, the disbanding of established enterprises, and the decline of one of our most important industrial groups.

Our forests ought to be put to work and kept at work. * * * We must all put our hands to this common task. It is not enough that the Federal. State, and local governments take the lead. There must be a change in our national attitude. Our industries, our landowners, our farmers, all our citizens must learn to treat our forests as crops, to be used but also to be renewed. We must learn to tend our woodlands as carefully as we tend our farms



F-200914

FIGURE 10 .- Transplant beds at the Monument nursery, Pike National Forest, Colo.

During the years 1921–1928 the observance was held on the same date throughout the country and was under the general direction of a national committee, representing nearly 100 associations interested in forestry and kindred subjects. In 1929 the plan which had been followed from the beginning with regard to Arbor Day was adopted and the date and method of observance left to the individual States. This enables each State to choose a time that fits into its program of forest fire protection, tree planting, etc., and opens the way for concerted public action in each region toward the solution of local forest problems, with cooperation on the part of the Forest Service, United States Department of Agriculture, in coordinating these local efforts and fitting them in with the national-forestry program.

ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE WHEN THIS PUBLICATION WAS LAST PRINTED

Secretary of Agriculture	ARTHUR M. HYDE.
Assistant Secretary	R. W. DUNLAP.
Director of Scientific Work	
Director of Regulatory Work	WALTER G. CAMPBELL.
Director of Extension Work	C. W. WARBURTON.
Director of Personnel and Business Admin-	W. W. STOCKBERGER.
istration.	
Director of Information	M. S. EISENHOWER.
Solicitor	E. L. MARSHALL.
Weather Bureau	CHARLES F. MARVIN, Chief.
Bureau of Animal Industry	JOHN R. MOHLER, Chief.
Bureau of Dairy Industry	O. E. REED, Chief.
Bureau of Plant Industry	WILLIAM A. TAYLOR, Chief.
Forest Service	R. Y. STUART, Chief.
Bureau of Chemistry and Soils	H. G. KNIGHT, Chief.
Bureau of Entomology	C. L. MARLATT, Chief.
Bureau of Biological Survey	PAUL G. REDINGTON, Chief.
Bureau of Public Roads	THOMAS H. MACDONALD, Chief.
Bureau of Agricultural Economics	
Bureau of Home Economics	Louise Stanley, Chief.
$Plant\ Quarantine\ and\ Control\ Administration_$	LEE A. STRONG, Chief.
Grain Futures Administration	J. W. T. DUVEL, Chief.
Food and Drug Administration	WALTER G. CAMPBELL, Director of
	Regulatory Work, in Charge.
Office of Experiment Stations	
Office of Cooperative Extension Work	
Library	CLARIBEL R. BARNETT, Librarian.
	and the second s

22